

In The Application Of

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For A

WIRE TIE HOLDING DEVICE

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BACKGROUND OF THE INVENTION

Field of the Invention:

The present invention is a wire tie holder / dispenser. Specifically, the invention is a belt-mounted device suitable for the containment of double loop rebar ties for user convenience.

Description of the Prior Art:

Numerous innovations for belt-mounted holders have been provided in the prior art that are described as follows. Even though these innovations may be suitable for the specific individual purposes to which they address, they differ from the present invention as hereinafter contrasted. The following is a summary of those prior art patents most relevant to the invention at hand, as well a description outlining the differences between the features of the present invention and those of the prior art.

1. United States Patent 5,687,892, invented by Johns, entitled "Belt Mounted Tool Hanger"

Johns' belt mounted tool hanger comprises a base member having a slot therein through and within which a portion of a workman's belt can be engaged and a hook which extends from a end edge of the base member, across same, and to a level above the height to which the base member extends.

2. United States Patent 5,842,620, invented by Koudakis, entitled "Belt-Mounted Tool Holder Device"

Koudakis' belt-mounted tool holder device includes a support plate defining a pair of spaced apart slots for receiving therethrough a belt of a wearer, a holder member fixedly attached to the support plate and extending outwardly therefrom, and a cup attached to an outer end of the holder member for receiving a portion of a tool therein. An inner end of the holder member is fixedly attached to one of the opposite sides of the support plate below the spaced apart slots defined by the support plate. The holder member extends outwardly from the support plate at an angle lying within a range of from about 15 degrees above to about 15 degrees below a line extending perpendicular to the support plate. The cup is attached to the outer end of the holder member and has a bottom wall and an annular sidewall attached to a periphery of the bottom wall and extending upwardly

therefrom. The annular sidewall defines an interior cavity and a top opening for receiving the portion of the tool into the interior cavity of the cup.

3. United States Patent Des. 359,848 invented by Pounds, entitled "Belt-Mounted Utility Hitch"

The design patent to Pounds depicts an ornamental design for a belt mounted utility hitch, as shown and described.

4. United States Patent 5,176,302, invented by Smith, entitled "Belt Mounted Can Holder"

The patent to Smith describes a holder for the handle of a container and comprises a substantially rigid, continuous wire-like member bent to form a belt receiving portion and an integral handle receiving portion. The belt receiving portion stabilizes the position of the holder and the handle receiving portion is provided with first and second locking portions through which the container handle must pass before resting at the bottom of the handle receiving portion. The container is thus maintained in a stable, convenient position when the wearer is moving his body and/or walking, freeing the user's hands for other operations while at the same time permitting convenient access to the contents of the can and further providing a sturdy and yet small and lightweight holder.

5. United States Patent Des. 272,201, invented by Garcia, entitled "Belt Mounted Holder For Allen Wrenches"

The design patent to Garcia depicts an ornamental design for a belt mounted holder for allen wrenches.

6. United States Patent 6,336,578, invented by Maynard, entitled "Wearable Cord Holder"

The patent to Maynard describes a cord holder for use with hand-held equipment that requires a power cord, air hose, or the like. The cord holder has a clip that attaches over a pocket or belt or similar item of apparel. A loop and hook securely hold a bight of the cord. The cord in front of the cord holder goes to the equipment, and has a desired amount of slack as selected by the user. Because of the secure attachment of the cord within the cord holder, the cord behind the cord holder may be pulled as the user moves about, without affecting the slack in the cord in front of the cord holder.

7. United States Patent 6,199,736, invented by Musarella et al., entitled "Tool Holder"

The Musarella et al. invention describes a tool holder for mounting on a user's belt. The tool holder includes a support member having two front supports and two rear supports. Each rear

support has a rear top portion, a rear bottom portion, and a rear transition portion positioned therebetween. Each front support is spaced from and biased substantially parallel to the rear top portion and is nonparallel to the rear bottom portion. Each rear transition portion extends toward the front support to provide a narrow gap which is smaller than the spacing between the front support and rear top portion, and the rear supports are connected by a support cross member. A bracket member extends between and connects the front supports, and a tool holding portion is provided for holding a tool. When the tool holder is mounted on a user's belt, front supports and rear transition portions provide resistance to removal of the support member from the belt.

8. United States Patent 6,145,717 invented by Rebeck, entitled "Holder For Push Poles And Other Tubular Implements"

The patent to Rebeck describes a holder for a push pole for maintaining a push pole within reach of a user and includes a push pole holding portion and a mounting portion. The push pole holding portion is dimensioned to releasably hold the push pole. The mounting portion is configured to be positioned on the user's body.

9. United States Patent 5,511,705, invented by Dreszer, entitled "Interchangeable Tool And Fastener Carrying And Storage System"

Dreszer's portable device is selectively operable as a tool and fastener caddy and storage device for clipping onto a tradesman's work/utility belt or for storing tools and fasteners, with the device detached from the belt.

10. United States Patent 5,195,667, invented by Gallant, entitled "Tool Holder"

The patent to Gallant describes a device for suspending T-shaped tools from a belt, toolbox, wall, or other mount, comprises a flat attachment material and a rotating holder body which secures the tool while allowing the tool to be inserted and removed from different angles. In order to ensure that the holder body stays in a useful position, its swing is limited by two stops which act as brakes and are affixed so as to protrude perpendicularly from the attachment material. The invention is designed so that after the tool is inserted into the holder, the head of the tool remains secured by the cantilevering action of a spring-loaded clip against a dead-lock arm extending downwards from the holder body. The opposite end of the tool rests on an L-shaped extending at right angles from the attachment material. The tool is removed by the natural motion of grasping the handle and swinging upwards. This results in the tool being held in an immediately usable manner as it is withdrawn from the holder.

11. United States Patent 5,052,603, invented by Spina, entitled "Implement Holder"

The patent to Spina describes a holder for an implement such as a mortar board which is to be horizontally positioned, and comprises a back plate having slots which receive a worker's belt so that the holder can hang on the belt and an L-shaped frame which has a vertical portion selectively attachable to the back plate and a horizontal portion which has two elongated supporting arms which protrude outwardly away from the back plate and are disposed in spaced relationship. The handle of the mortar board is inserted into the space between the arms so that the flat board rests on the two supporting arms. When the handle is engaged between the two supporting arms and the board rests on the supporting arms, both hands of the worker are free to conduct other operations.

12. United States Patent 5,452,830, invented by Hopkins et al., entitled "Implement Holder"

The patent to Hopkins et al. describes a holder for implements such as a mortal board, which is to be horizontally positioned, knives, such as broad, spackle, and shear knives, which are to be positioned at an angle, and a roll of drywall tape, vertically positioned. Holder comprises a back plate to secure implements, and a second plate in which the implement holder is temporarily attached to the user, more specifically, the waist area of the user. The mortar board is inserted into the Y-shaped slots which are horizontally aligned to the back plate and are disposed in spaced relationship. The knives are inserted into the compression loaded slots having adjacent relationship and positioned at

an angle from the back plate. The tape is inserted into the J-shaped hook which is spaced away from the back plate to allow for the tapes positioning and removal to and from the implement holder. The parts which comprise the implement holder are made from a rigid material, preferably aluminum. When the implements are engaged in their appropriate locations within the implement holder, both hands of the worker are free to conduct other operations.

The relevant prior art described above entails items such as belt-mounted holders for a variety of tools, including hammers and other “T-shaped implements, wrenches, knives, tape rolls, and other painting supplies. Also found in the prior art are belt-mounted holders for mortar boards, spackle containers, and various buckets and receptacles.

In contrast, the present invention is a specifically-designed belt-mounted device comprising a support member, and left and right members extending outwardly therefrom which define a vertical slot for the removable insertion of wire ties, such as double loop rebar ties. Alternate embodiments of construction each include the left and right members at a maximum of 4 7/8 inches apart from one another, with each at least 8 inches in height, to contain ties of 6 to 12 inches in length. Importantly, in a single motion, the user can slide up to 75 ties onto the holder. The user can then easily remove the ties without the tangling associated with existing methods, saving the user significant time.

SUMMARY OF THE INVENTION

As noted, the present invention is a wire tie holder / dispenser. Specifically, the invention is a belt-mounted device suitable for the containment of double loop rebar ties for user convenience.

In the preferred mode of production, the device comprises a generally rectangular support member, which comprises a work belt foldover thereon for attachment to the belt. Left and right L-shaped aluminum or steel members are affixed to the support member via rivets, and extend outwardly therefrom. In this mode, a stiffening material be also be utilized to provide additional structural support. The left and right members are a maximum of 4 7/8 inches apart from one another in the preferred mode, and are at least 8 inches in height.

In an alternate mode of production, the device utilizes a steel rod assembly in lieu of the aforementioned L-shaped members. The steel rod may be 1/4 inch in diameter, and also comprises left and right members extending outwardly from the support member, of a size within the range noted above.

In either embodiment, the left and right members define vertical slots in which the user may easily load wire ties from the coil supplied by the manufacturer.

In particular, through one smooth motion, the user may slide up to 75 ties onto the holder, with the same motion allowing for withdrawal of guide wires from the 75 pieces.

Regarding its versatility, the device holds and dispenses ties from 6 to 12 inches in length, allowing the invention to be useful for a variety of tasks. In summation, the present invention functions to eliminate tangling often associated with conventional means of holding and dispensing ties, saving the user significant time during the job in question.

In light of the foregoing, it is generally an object of the present invention to provide a product that may be used in a variety of construction-related activities.

It is another object of the present invention to provide a convenient product that assists the user and significantly adds to the user's productivity.

It is an additional object of the invention to provide a lightweight product that accomplishes the aforementioned purposes without hindering the user's ability to perform the activity in which it is used.

It is a further object of the invention to provide an item that may be constructed of a variety of previously-existing materials that are cost-effective and convenient for the purposes of manufacture.

It is an additional object of the invention to provide an item that may be produced in a variety of sizes to accommodate all users in all activities

Finally, it is an object of the present invention to provide an item that is durable and that maintains its effectiveness for extended periods of time.

The novel features which are considered characteristic for the invention are set forth in the claims. The invention itself, both as to its construction and its method of operation, together with additional objects and advantages thereof, will be best understood from the following description of the embodiments when read and understood in connection with accompanying drawings.

BRIEF DESCRIPTION OF PREFERRED EMBODIMENTS

FIGURE 1 is a three-quarter perspective view of one mode of the present invention, illustrating support member (12), belt loop foldover (14), belt (16), left vertical support member (18L), right vertical support member (18R), and slot (20), which is able to removably receive wire ties (22) therein, all components shown for the purposes of example only.

FIGURE 2 is a three-quarter perspective view of another mode of the present invention, illustrating support member (12), belt loop foldover (14), belt (16), left portion of single steel rod (24L), right portion of single steel rod (24R), and slot (20), which is able to removably receive wire ties (22) therein, all components shown for the purposes of example only.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to: FIGURE 1, which is a three-quarter perspective view of one mode of the present invention, illustrating support member (12), belt loop foldover (14), belt (16), left vertical support member (18L), right vertical support member (18R), and slot (20), which is able to removably receive wire ties (22) therein, all components shown for the purposes of example only:

More particularly, the belt-mounted wire tie holding device comprises a main support member which comprises a belt loop foldover at an upper portion thereof. The belt loop foldover allows the main support member to removably affix to a belt, such as a traditional work belt. The main support member may be manufactured of a durable material, such as Cordura®. Moreover, the main support member may further comprise a stiffening material therein, to provide additional structural support therefor.

The main support member further comprises a left vertical support member extending a predetermined space outwardly from the support member, and a right vertical support member extending a predetermined space outwardly from the support member.

In the preferred mode of manufacture, the left support member and right support member are affixed to the main support member via rivets for the utmost in durability. However, other means of affixing the two principal components to one another may be utilized, provided that such alternate means provides strength and durability.

Importantly, the predetermined spaces define a slot in which a plurality of wire ties may be removably inserted. In the preferred mode of production, the device is configured to removably hold rebar ties. Specifically, the device is configured to removably hold double loop rebar ties.

In the preferred mode of manufacture, the left support member and right support member are approximately 4 7/8 inches apart. In addition, the left support member and right support member are each approximately 8 inches in height. Although other proportions may be used, such proportions allow the device too removably hold and dispense approximately 75 typical wire ties, such as those that are 6 to 12 inches in length. Though other sizes may be used, in the preferred mode the slots are approximately 1/8 inches in width to accomplish such purposes.

In one mode of production, the left support member and right support member are “L” shaped, and are embodied in separate pieces affixed to the main support member. In this versions, the left support member and right support member may be constructed of aluminum.

Regarding another embodiment, FIGURE 2 is a three-quarter perspective view of another mode of the present invention, illustrating support member (12), belt loop foldover (14), belt (16), left portion of single steel rod (24L), right portion of single steel rod (24R), and slot (20), which is able to removably receive wire ties (22) therein, all components shown for the purposes of example only.

In this of production, the left support member and right support member are affixed to one another in the form of a single rod assembly. In this version, the single rod is approximately 1/4 inches in diameter, and the device may utilize the other sizes and proportions referred to above. Furthermore, in this version, the left support member and right support member may be constructed of steel.

In either version, it is important to note that the device may bear previously determined text, graphics, designs, colors, and corporate logos or advertising thereon. In addition, the device may be of a size selected from the group consisting of small, medium, and large depending on the activity in which the device is to be used.

With regards to all descriptions and graphics, while the invention has been illustrated and described as embodied, it is not intended to be limited to the details shown, since it will be understood that various omissions, modifications, substitutions and changes in the forms and details of the device illustrated and in its operation can be made by those skilled in the art without departing in any way from the spirit of the invention.

Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can readily adapt it for various applications without omitting features that, from the standpoint of prior art, constitute essential characteristics of the generic or specific aspects of this invention. What is claimed as new and desired to be protected by Letters Patent is set forth in the appended claims.